

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

A47
R31

UNITED STATES
DEPARTMENT OF AGRICULTURE
LIBRARY



BOOK NUMBER
914030

A47
R31

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Office of the Administrator
Washington 25, D. C.

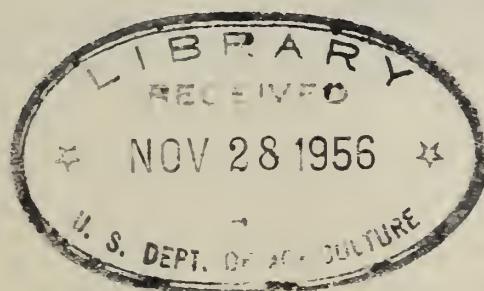
SUGGESTIONS FOR RESEARCH
from
Representations of Poultry Industry Organizations
to the
Poultry Research and Marketing Advisory Committee
U.S.D.A.

The following suggestions for needed research were made by the indicated poultry organizations for consideration by the U.S.D.A. Poultry Research and Marketing Advisory Committee at its meeting in Washington, D. C. on January 11-13, 1956:

INSTITUTUE OF AMERICAN POULTRY INDUSTRIES

SHELL EGGS:

1. Research is needed to re-evaluate quality criteria of shell eggs for table use. Much emphasis is being placed on thickness of albumen, with "the thicker the better" as the goal. There is far too little evidence that the consumer agrees with this generalization. The information needed is: What are the quality characteristics of eggs that would prompt greatest consumer acceptance?
2. Research is also needed on a related problem: Is egg quality for table use the same or different than egg quality for products use?
3. Additional basic information is needed on composition and structure of eggs in relation to functional properties. Individual hen, strain, and breed differences should be studied. The influence of environment, management, disease, and nutrition on the laying hen may be very important.
4. Continue and expand comprehensive research to clarify the effect of shell egg cleaning on egg quality and shelf life. Basic information is needed on the inherent properties of the egg which make it resistant to spoilage. The importance of microbiological populations on and in shell eggs needs to be determined more fully. Further research along conventional lines on egg washing is not likely to be productive.



EGG PRODUCTS AND BY-PRODUCTS:

1. The problem of *Salmonella* in egg products needs to be studied further. A study to identify the sources of contamination is indicated, as well as effective methods of control. Development of control measures is seriously handicapped because of the lack of this information. For example, it is not known to what extent the egg shell, egg liquid, plant equipment and personnel contribute to the initial *Salmonella* contamination.
2. Acknowledging the paramount importance of recommendation 1, and realizing that the development of adequate quantitative methods is a basic necessity thereto, it is recommended that continued and increased support be given for basic research on *Salmonella* physiology and nutrition leading to improved methodology.
3. Expand basic physical, chemical and biological research on shell eggs and egg products.
4. Develop and evaluate standard test formulae for such products as baked goods, confectionary items and mayonnaise products. Priority should be given to the development of an Angel Food Cake test formula for the evaluation of egg white solids.
5. Develop and evaluate procedures for the measurement of color in egg products which can be correlated with the visual color in varied finished products such as baked goods, noodles and mayonnaise.

POULTRY MEAT AND BY-PRODUCTS:

1. Immediate consideration of comprehensive research on tenderness problems in poultry, particularly in frozen turkeys and chickens.
2. Continuation of comprehensive research on Ornithosis. This study to include turkeys, chickens, other birds; mode of transmission; incidence in turkeys of various ages; and the development of proper control.
3. Establishment of improved criteria for condemnation of all types of poultry carcasses during inspection for wholesomeness. It is suggested that this study be conducted by a disinterested party.
4. Comprehensive research on flavor and off-flavor (what causes it ... how it can be prevented) in poultry, particularly in pre-cooked frozen items.

5. Critical determination of nutritional value of evisceration offal processed by different methods as ingredients in animal and poultry feeds.
6. Further research to develop plant methods for extending the shelf life of chilled eviscerated poultry (all types) especially studies on sanitation, refrigeration and the use of anti-microbial agents.
7. Study to determine the criteria for adequate packaging of eviscerated poultry (all types) and poultry products, including eggs.

FARM PRODUCTION

Much fine research is underway in the areas of nutrition, breeding, pathology and related problems of management.

1. It is the judgement of this Committee that research programs should place more emphasis on the study of the pathological aspects of management problems as complicated by the stress conditions in the field of production. Increasing emphasis should be placed on research that leads toward control measures which must not however be construed as substitutes for good management.
2. Even with the great emphasis on nutrition research of the highest quality, little is known of the optimum nutrition of disease flocks that must of necessity be held pending recovery or disposition or appropriate changes in diet during the incipient stages of any disease. Research in this area should be stepped up.
3. More studies should be made and special emphasis placed on modes of evaluating and checking vaccines prior to approval and release to the poultry industry. A start in this work with respiratory disease vaccines has been made at the University of Wisconsin with but meager financial support from regional funds. This work needs more support.
4. There are still many intangibles and unanswered problems in the area of management. More emphasis should be given to controlled environmental studies. The effects of housing, care, age of layers, cages vs. floor, and many other practices, on the quality of the product are in need of evaluation.

ARKANSAS POULTRY FEDERATION

1. Additional research is greatly needed on Leucosis Complex, Epidemic Tremors and Respiratory Diseases.

2. Housing and the influences of different levels of house construction on meat and egg production, particularly in respect to heat control.
3. Management in flock management studies for both chickens and turkeys with flocks of sizes applicable to conditions of commercial producers.
4. Processing - Basic research on consumer acceptance. We wonder if sales are lost by detracting from appearance due to labor saving methods during processing.

NATIONAL TURKEY FEDERATION

1. Expand research on ornithosis to include a study of the ecology of the disease.

POULTRY AND EGG NATIONAL BOARD

1. Initiate research to determine whether alcohol has a sterilizing effect on any harmful organisms in eggnog.

SOUTH EAST POULTRY PRODUCERS ASSOCIATION

1. Initiate research to develop means for reducing losses from heat prostration in broilers between production area and processing plant.

PACIFIC EGG AND DAIRY ASSOCIATION

1. Initiate studies to determine the feasibility of forecasting broiler prices as related to consumer supply and demand, to serve as a guide to producers.

